



## Problem Statement

How can a small city in the Midwest prepare and accommodate for current and future population growth, while maintaining long term community viability?

## Project Emphasis

The main goal for this project is to research and determine the effect that an oil boom can have on a community and help it better accommodate for current and future change. This project will examine the city of Dickinson and the people who live there, how it has functioned in past years, and how it is coping in its current situation. A better understanding of the Dickinson and its past, will determine how the city can thrive during an oil boom and maintain long term viability.

It is also important to identify the growing needs of a community, while still maintaining its small town values.



(1)

Revitalizing Small  
Scale Urban Corridors | Dickinson, ND

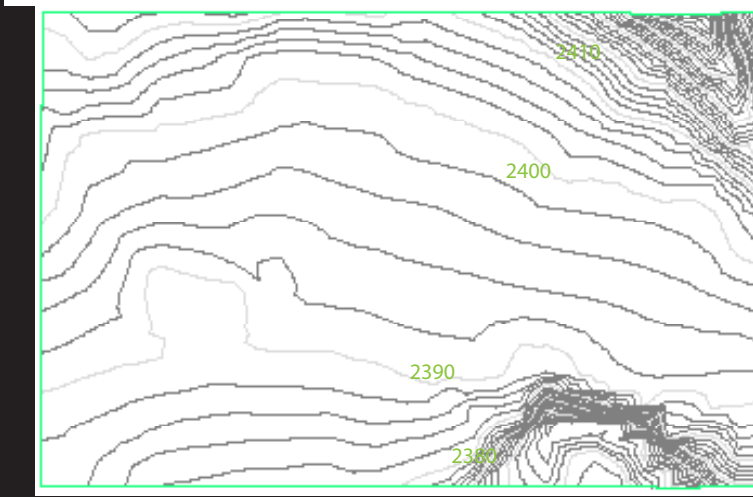
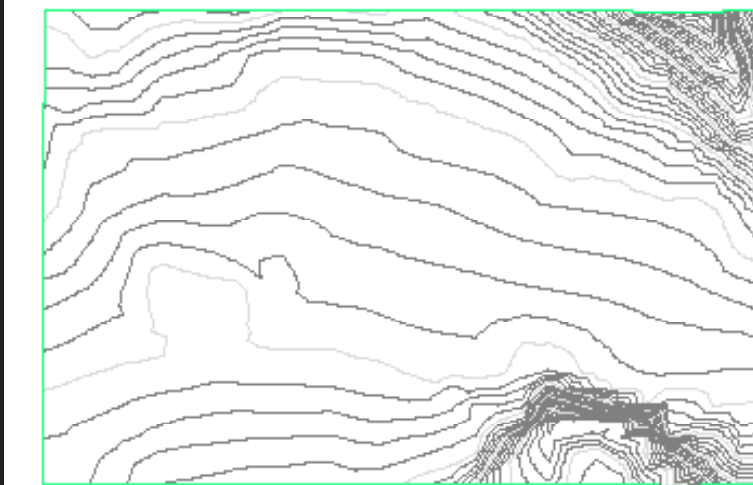
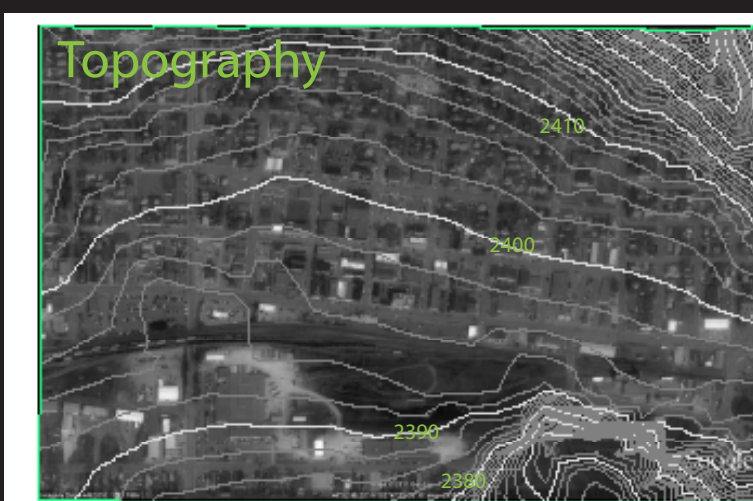
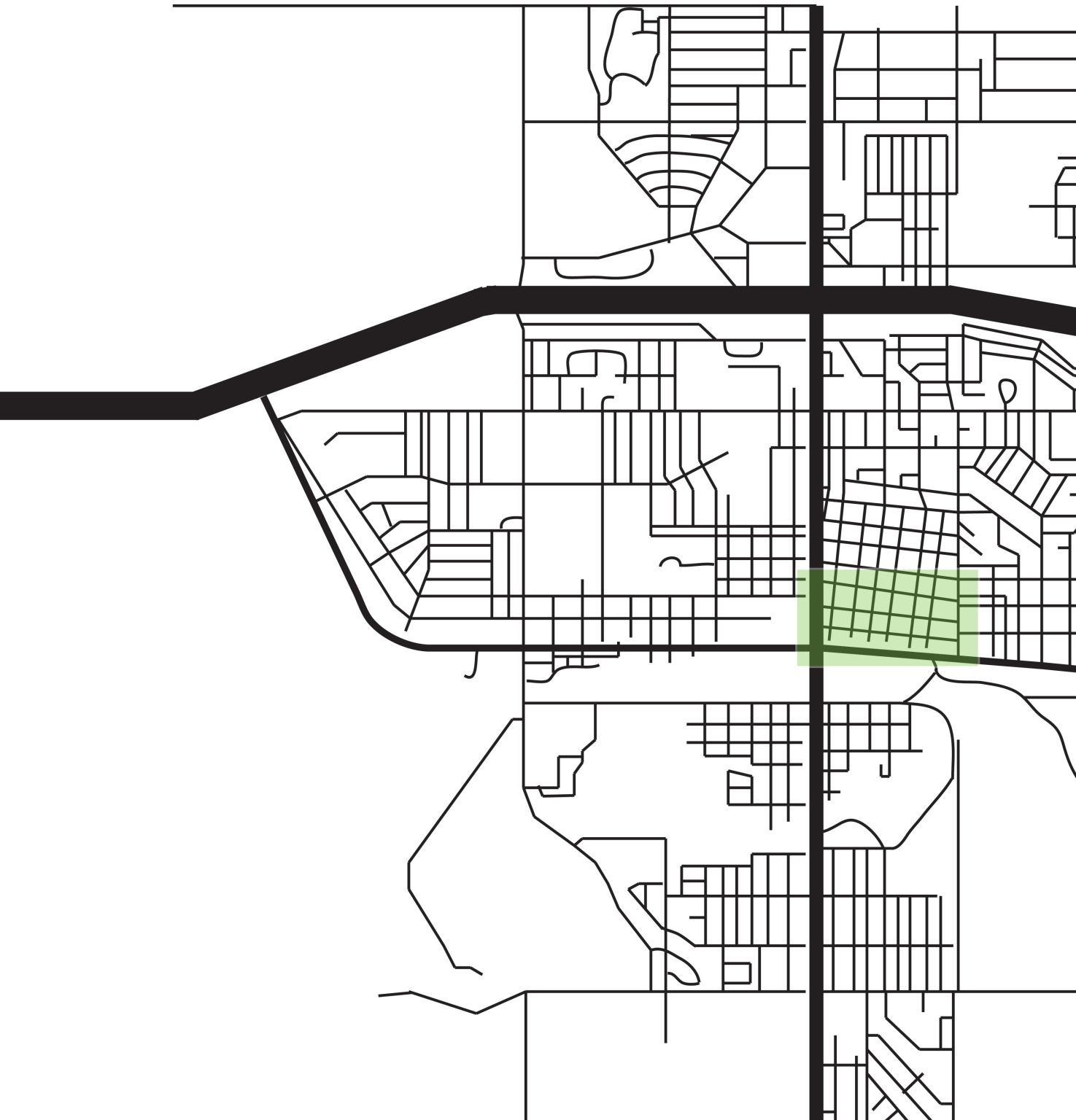
North Dakota

Dickinson

194

Fargo





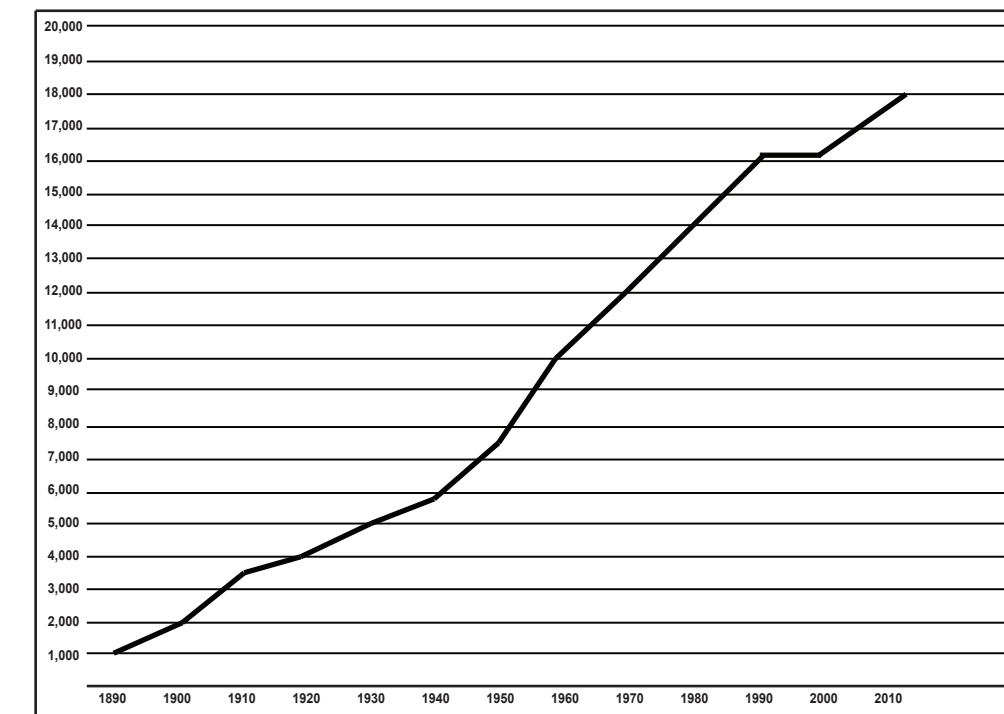
Dickinson was established in 1881 after the construction of the North Pacific Railroad in 1880.

It is a small, friendly city with a shared sense of community.

## Population

18,000 with an average age of 35

In the last 8 years, the population of Dickinson has been steadily increasing. **The 2010 census shows that the population has grown to about 18,000 - up 2,000 people from the year 2000.** The **average age** of individuals living in the city is **35**. This means that Dickinson has a young population, meaning people are moving to the city.



Both map and graph information:  
Dickinson North Dakota Demographics. (n.d.). Dickinson Guide to Events, Dining, Hotels, and Area Information. Retrieved September 30, 2011, from <http://dickinsonnd.usl.myareaguide.com/demographics.html>

## Building Density / Site Location





The Bakken Shale Formation is **located in the Williston Basin Formation in the northern part of the United States.** It occupies North Dakota, Montana and part of Canada. Geologists have known about this shale formation for quite a few years now, but until recently has there been any reason to drill in this location. Until recently, natural gas and oil have been made readily available to consumers, and at low prices. In 2008, oil reached \$145 a barrel, hitting an all time high. (bakken shale) This is when oil corporations started moving their companies to the Midwest in search of the mineral rights to the land to begin drilling.

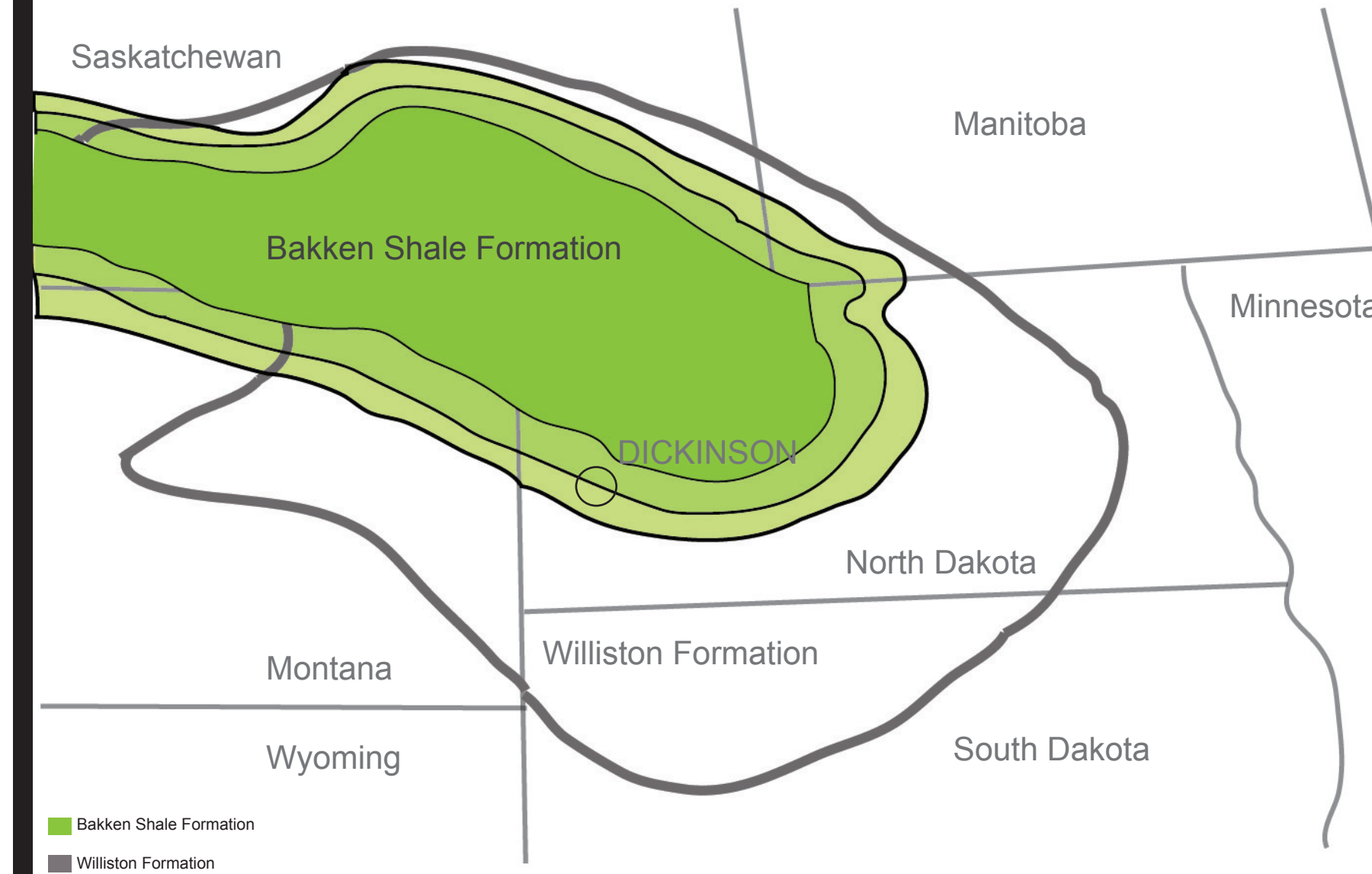
The Bakken Formation is a deposit of shale deep below the Earth's surface that contains oil and natural gas. The shale consists of sedimentary rock that is made of solid Kerogen material. These Kerogen materials, when heated are transformed into a liquid state. The Bakken Oil Shale, like all the other shale deposits in the World, were formed millions of years ago. They were formed by organic material and silt left behind by lakes and other bodies of water.

**The Bakken Shale is predicted to contain billions of barrels of oil. This makes it the largest oil discovery in the United States next to the Arctic National Wildlife Refuge in Alaska.** (oil shale)

### The Bakken Shale Formation

**Within the next 30 – 40 years, the Bakken Shale is predicted to become the largest available oil reserve in the World.** (oil shale)

Currently, new wells are being implemented every day. **North Dakota has one of the lowest unemployment rates in the nation in the country because the shale is creating millions of new, high paying jobs in the area.** It is also bringing many new people to the area.



# How has a population increase effected Dickinson and other Communities in Western North Dakota?

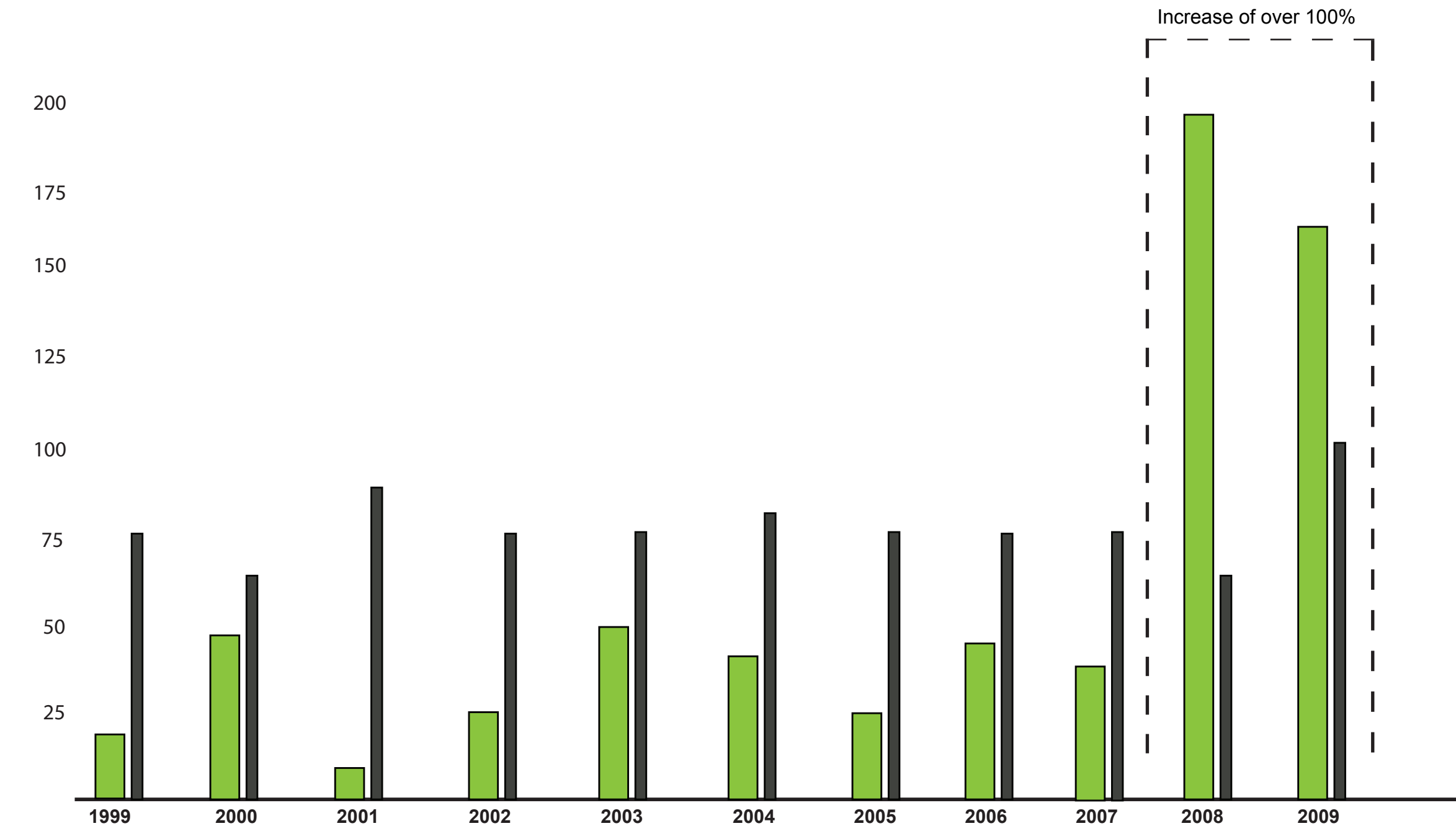


- Increased business and revenue in the community = the need for more jobs
- North Dakota has one of the highest employment rate in the Nation
- The added business in the community has made Dickinson a growing city



- Increased assaults
- Increased traffic volumes
- Need for more law enforcement, child care and medical personnel
- Inflated prices

Dickinson North Dakota Demographics. (n.d.). Dickinson Guide to Events, Dining, Hotels, and Area Information. Retrieved September 30, 2011, from <http://dickinsonnd.usl.myareaguide.com/demographics.html>





## Butte, Montana [ A Similar Situation ]

**Butte was settled in the 1860's.**

**By 1901 the population had grown over 100,000.**

**In the 1950's, when the mining began to slow, the population started to decrease.**

**Butte is still a mining town. Currently, the population of Butte is 34,000.**

History » Butte Montana CVB. (n.d.). Butte Montana Convention and Visitors Bureau. Retrieved December 1, 2011, from <http://www.but-tecvb.com/history/>

**Rapid  
Expansion**



Empty buildings  
Deserted oil rigs  
Sprawled cities

What are my design goals?

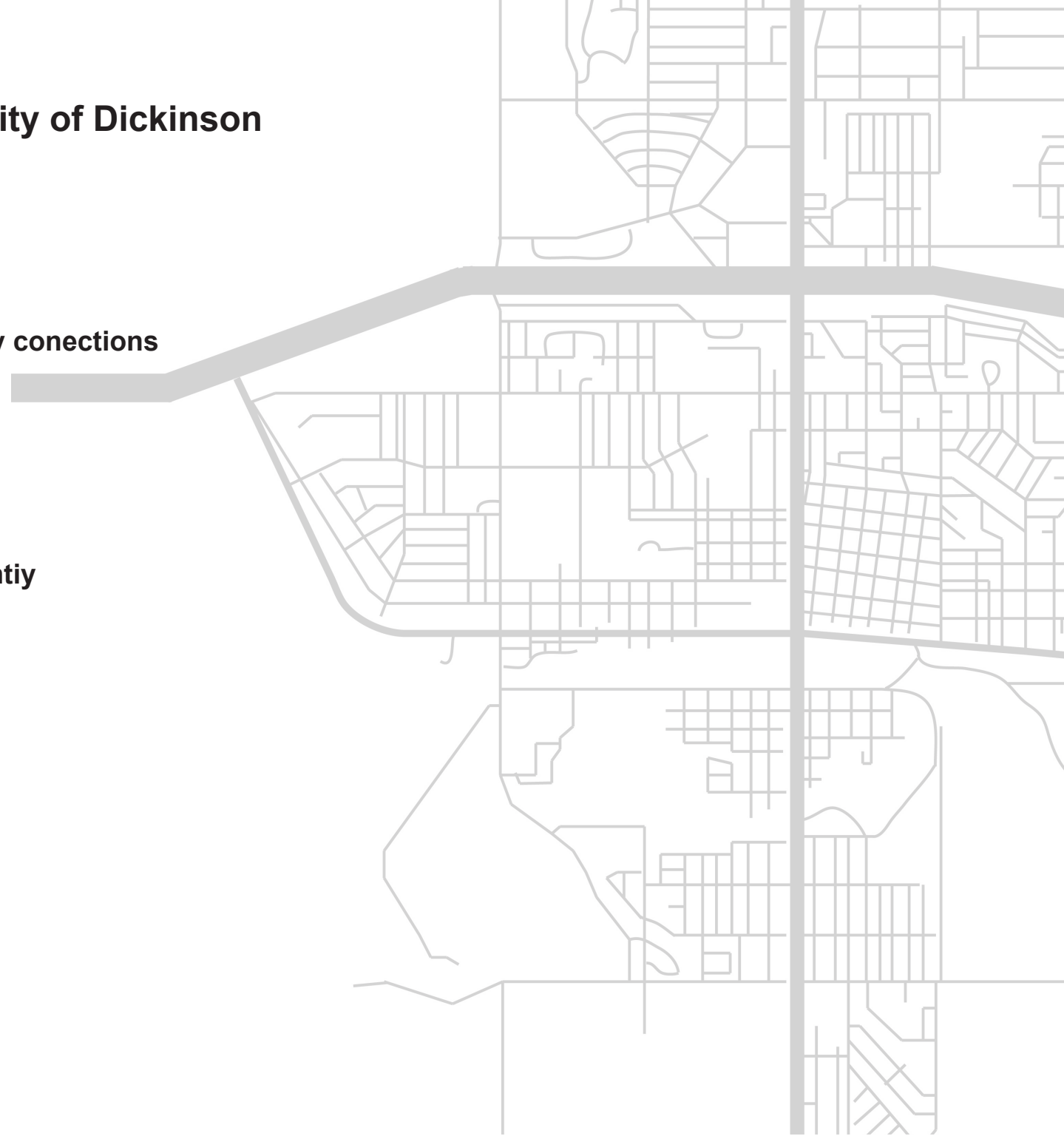
Maintain the future viability of the city of Dickinson

Circulation

Create destination areas & greenway conections

Address community tension

Estabolish a historic character / identiy





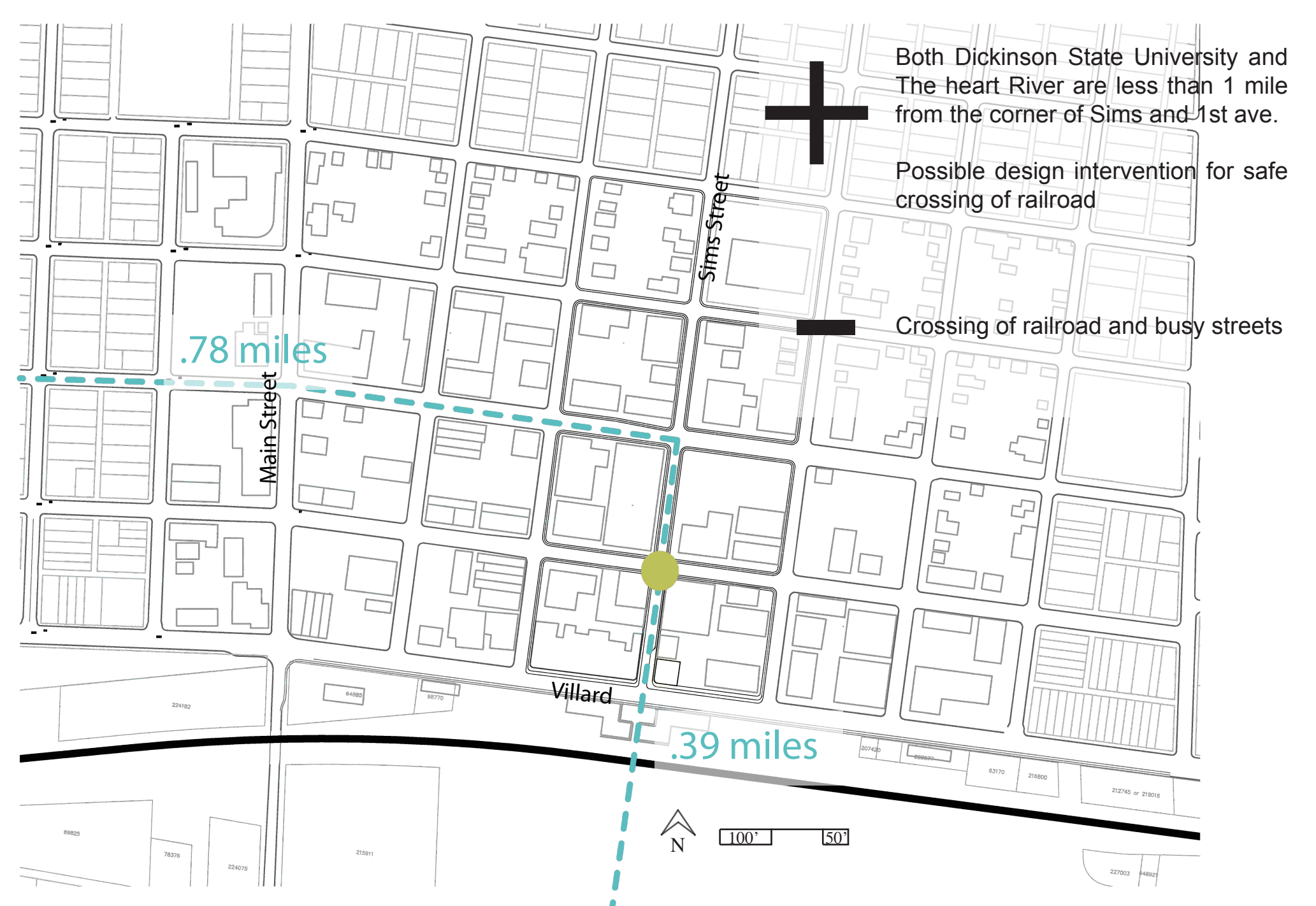
Important Streets



Infill



Distances



# Schematic Plan



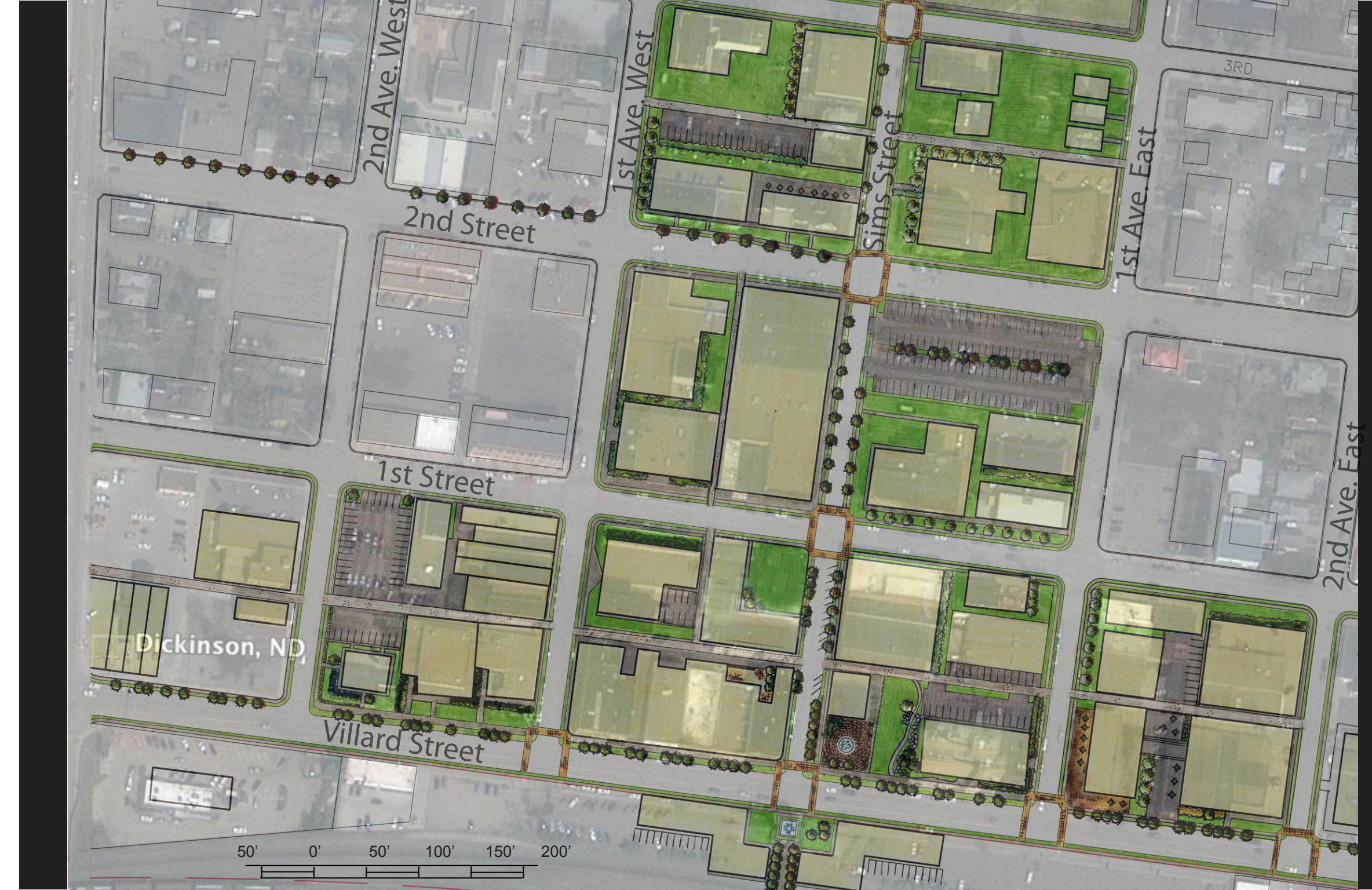


**A** New 3 story, mixed-use buildings offer affordable housing, shopping and job opportunities for people to live, work and play in the area.

**B** Courtyard provides views of Sims Avenue, relaxation and shade.

**C** The water feature in the courtyard adds aesthetic value and sound to drown out the noise from the street.

**D** Villard Street is now more narrow to provide a safe pedestrian environment.



**E** The courtyard leads to a possible green way connection for a safe railroad crossing. It would connect to the existing park trail system.

**F** Outdoor seating areas for local cafes and restaurants will provide increased business revenue for merchants and provide people with a unique outdoor experience.

**G** New street trees provide shade and a safe barrier from the street.

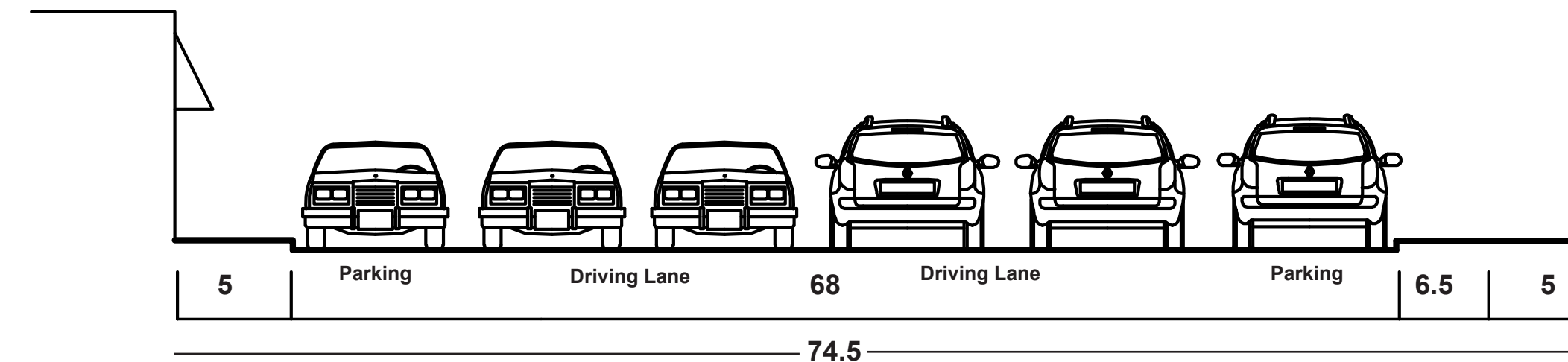
## masterPLAN

**H** Because Dickinson State University is less than a mile away from downtown, a pedestrian greenway connection has been established. Unique trees, [Amur maples] with different color foliage, will connect the downtown area to the university.

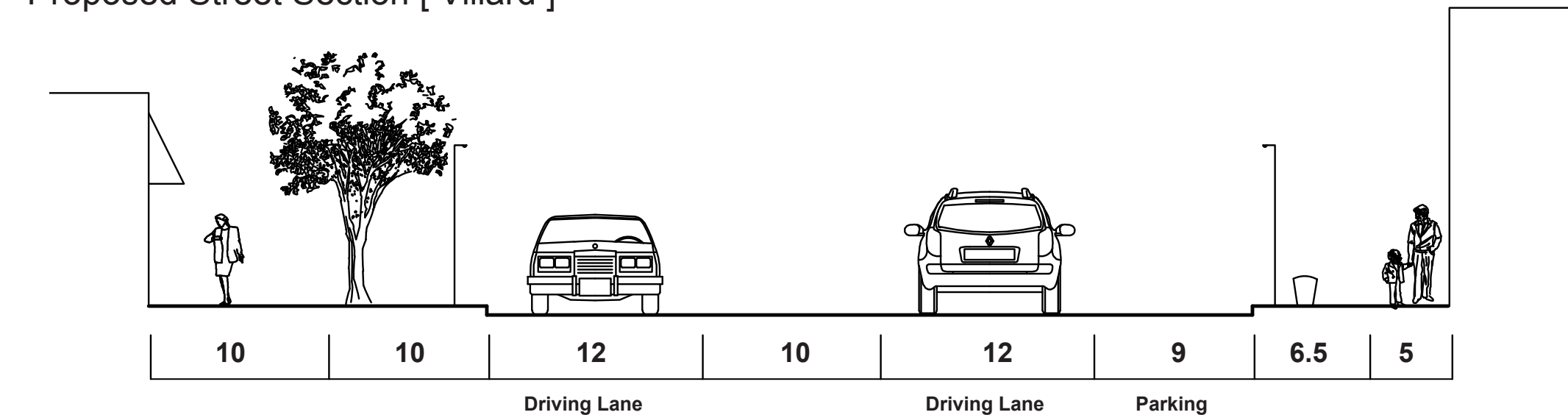
**I** A new parking lot will provide majority of the parking for the area. The parking lot incorporates a rain garden to collect any excess water.



Existing Street Section [ Villard ]



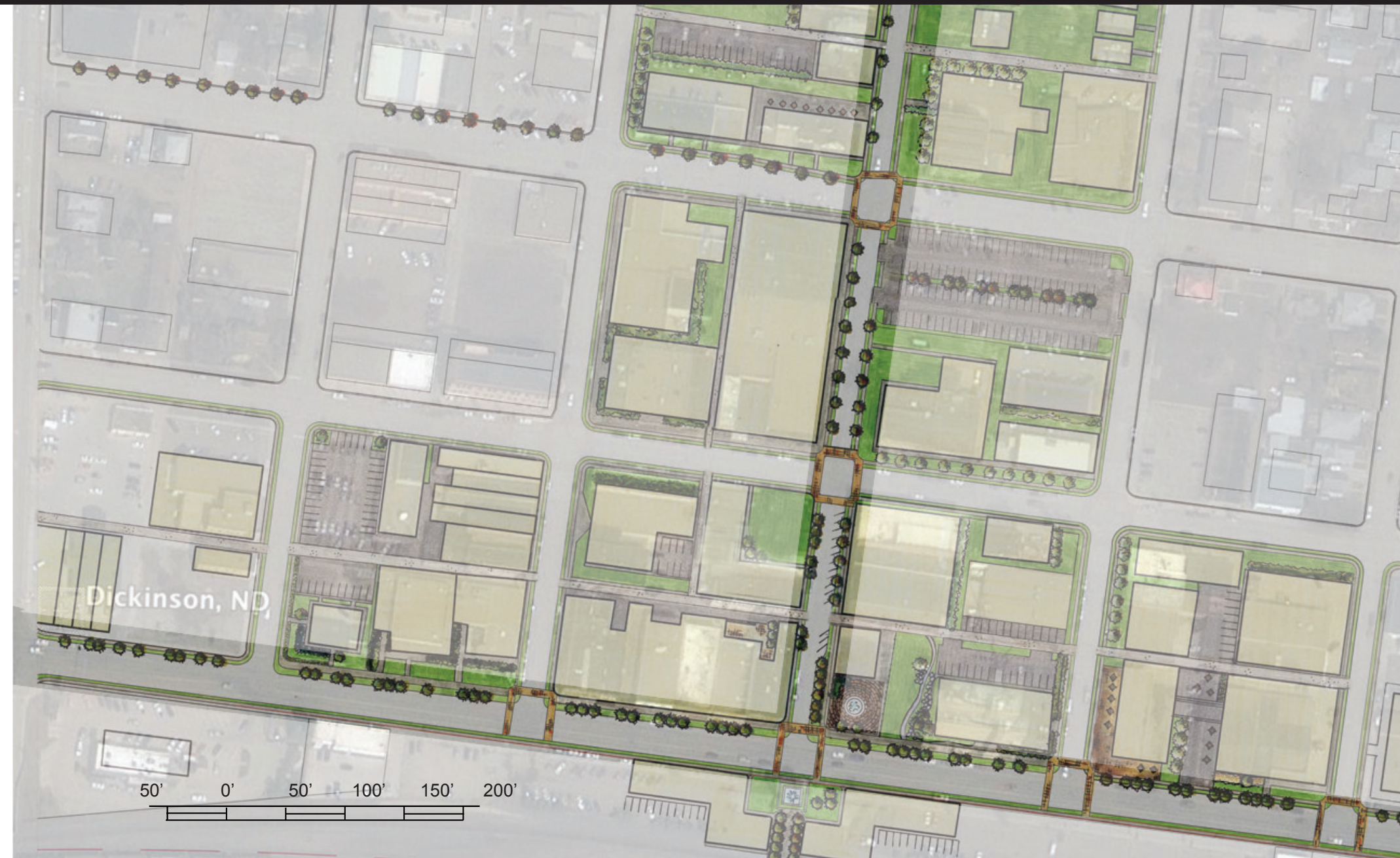
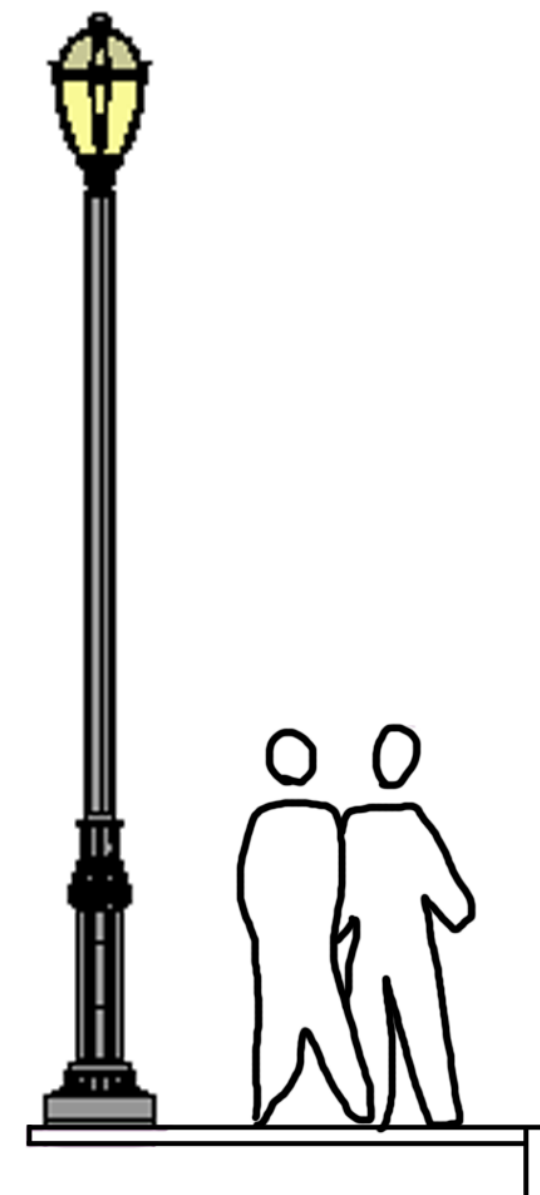
Proposed Street Section [ Villard ]



Viewing West - Down Villard Street.

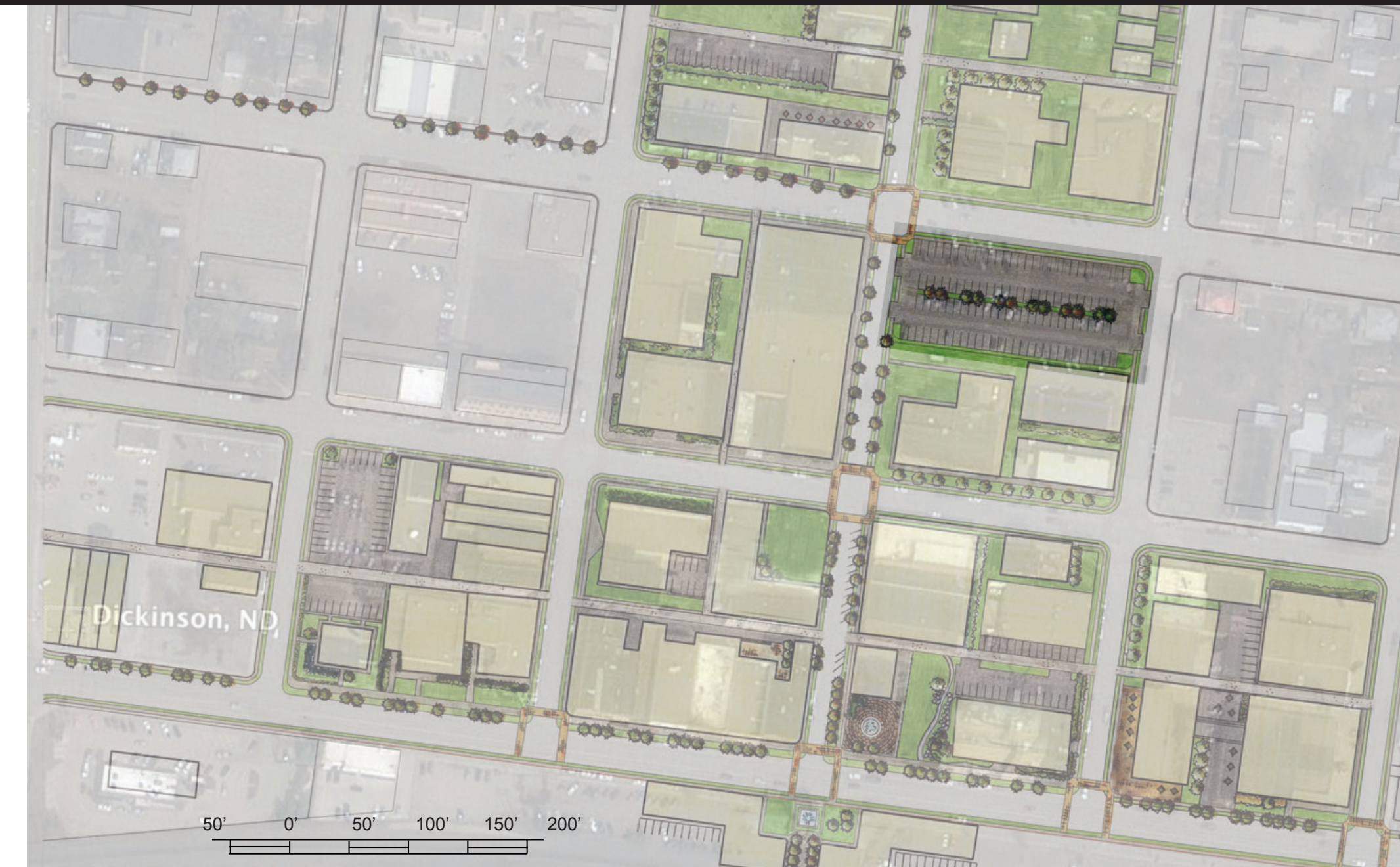
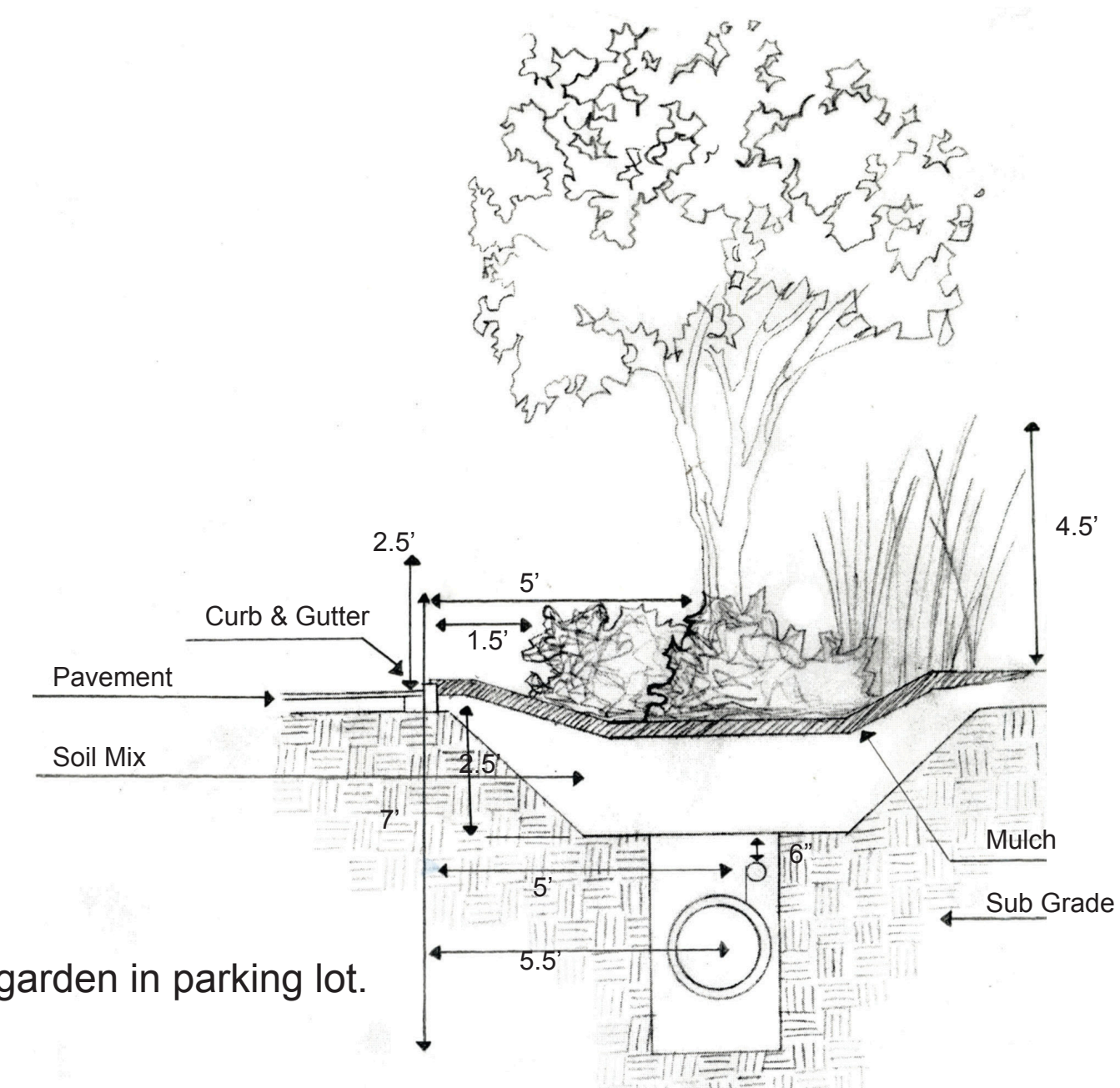


This image shows the building and street relationship of Villard Street. This street is occupied with restaurants, bars, and stores. The wide sidewalk allows people to walk comfortably, away from traffic. Street lights provide way finding when it is dark and seating is provided for those who want to rest.





Detail of Rain garden in parking lot.



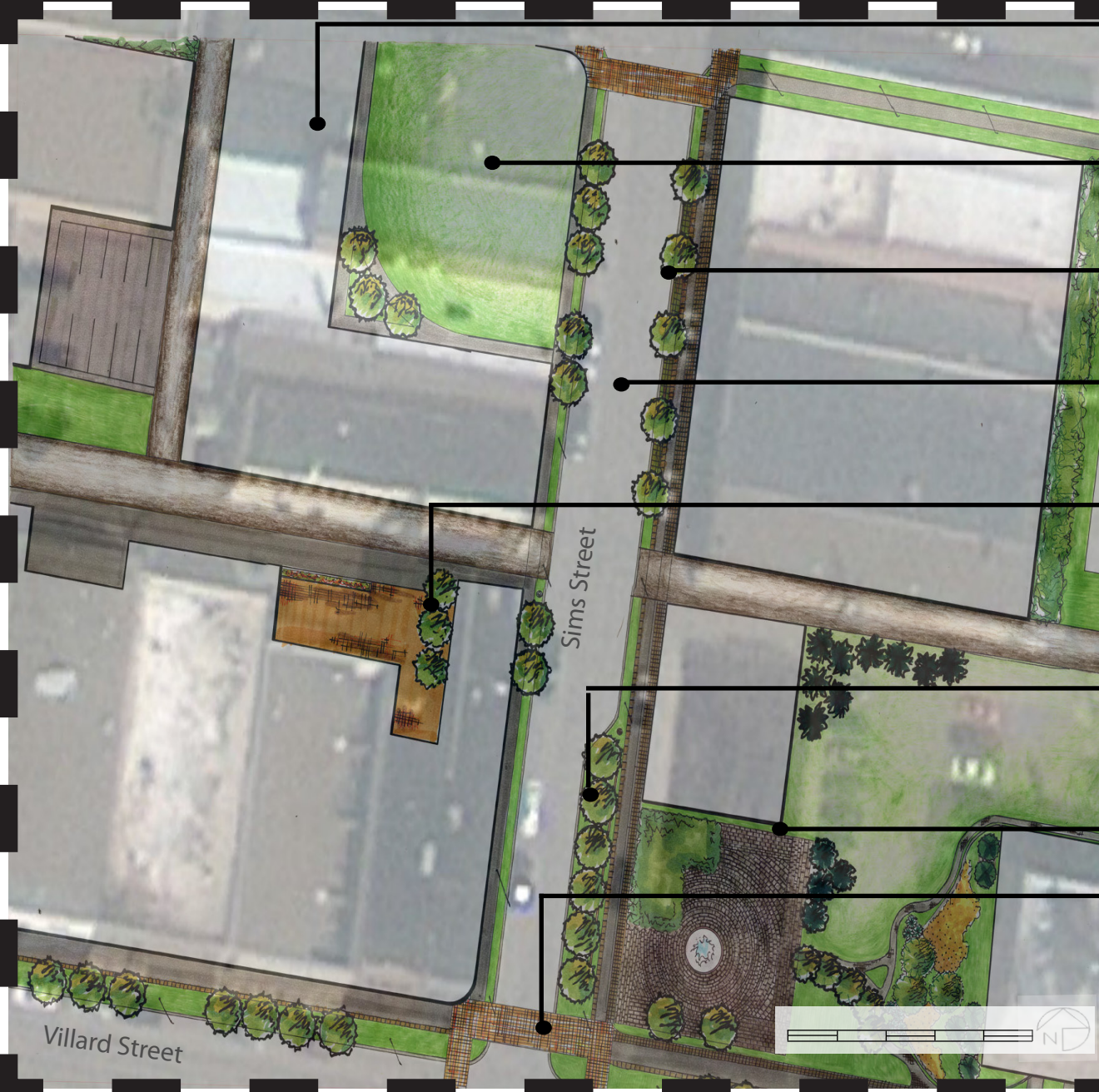


Circulation

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Estabolisth a historic character / identiy



New 3 story, mixed-use buildings incorporate affordable housing, shopping and job opportunities.

Courtyard provides views of Sims Avenue, relaxation and shade.

New street trees provide shade and a safe barrier from the street.

Sims Ave. is now more narrow to provide a safe pedestrian environment.

Outdoor seating areas for local cafes and restaurants will provide increased business revenue for merchants and provide people with a unique outdoor experience.

Extra wide boulevard provides angled parking and opens views to the existing plaza on the corner of Sims and Villard.

Existing Plaza

Unique paving patterns at all intersections provide pedestrians with designated, safe crossing areas. The brick pattern reflects the historical character on the buildings in the area.



Viewing south - down Sims Avenue.

The downtown area will be used during all seasons. The wide boulevard provides an open view to the existing plaza. Because the plaza is no longer hidden by parked cars, It will be a popular destination. The boulevard will also serve as an area to deposit large amounts of snow during colder months.



Image of the existing plaza on the corner of Sims and Villard. With street parking removed on all sides, views of the plaza become visible.



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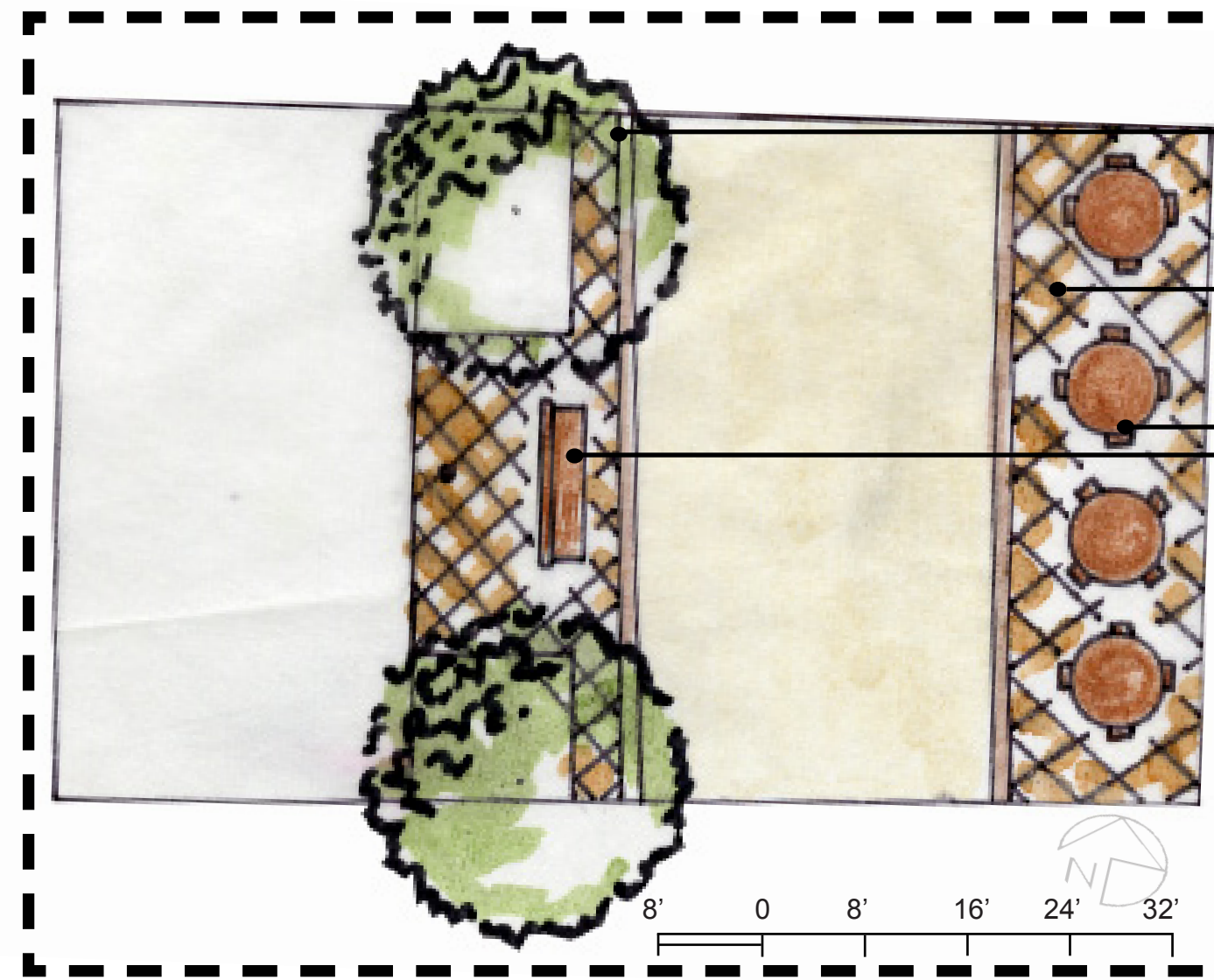




Calander of Events

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
St. Benedict's Candle Light Dinner Bull Day showcase Sampling of Sicily		Spring Blizzard Blender			Carnival <b>Spring Parade / Dance</b>	<b>Dakota Street Fair</b>			<b>Hunting Festival</b>	Charity Ball Taste of Nations	Parade of Lights <b>Holiday Craft Show</b> Yuletine with a Twist





Street trees provide shade and aesthetics to the street scape.

Paving patterns resemble the historic brick buildings.

Different types of seating allow the pedestrain to rest, out of the line of traffic.

<http://www.profoundit.com/search.php?sop tion=csi&csi1=12&csi2=93&csi3=&set=2>

<http://www.city-data.com/picfiles/cpic30544.php>

<http://www.centralparknyc.org/donate/honor-someone-special/adopt-a-bench.html>

<http://www.google.com/imgres?q=paving+materials&um=1&hl=en&sa=N&biw=1439&bih=780&tbn=isch&tbn>

<http://www.google.com/imgres?q=paving+materials&um=1&hl=en&sa=N&biw=1439&bih>





